

*A1  
amend*

if the moving direction of the shape sensor a is inclined to the central axis of the roll-like object 14, the measurement is performed inflating the score by the degree corresponding to the inclination, and the measuring accuracy is lowered. Accordingly, in order to raise the measuring accuracy, the mounting accuracy of the measuring device to the roll-like object 14 should also be raised, but a delicate apparatus is necessary for that purpose, and therefore, not only does the apparatus become complicated but also a cost increase is caused.

---

**IN THE CLAIMS:**

**Please enter the following amended claims:**

---

- Sub  
B1  
A2*
1. (Amended) A peripheral surface shape measuring apparatus of a roll-like object which measures a peripheral surface shape of a roll-like object, comprising:
- a displacement amount measuring device which has a pinching device including two arms connected together at first end portions with a hinge and that pinch the roll-like object in a diameter direction of the roll-like object with a sensor part and a reference point part arranged opposite to each other in second end portions of the two arms, and which measures a displacement amount when the sensor part is relatively displaced in the diameter direction with respect to the reference point part; and
- a moving device which moves the displacement amount measuring device from one end side of the roll-like object to another end side of the roll-like object in an axial direction of the roll-like object,

Sub B1  
cancel

wherein the peripheral surface shape of the roll-like object is measured on the basis of the displacement amount of the sensor part accompanied by movement of the displacement amount measuring device.

**Please add the following new claim:**

Sub B1  
cancel

9. (New) A peripheral surface shape measuring apparatus of a roll-like object which measures a peripheral surface shape of a roll-like object, comprising:

a displacement amount measuring device which has a pinching device that pinches the roll-like object in a diameter direction of the roll-like object with a sensor part and a reference point part arranged opposite to each other, and which measures a displacement amount when the sensor part is relatively displaced in the diameter direction with respect to the reference point part; and

a moving device which moves the displacement amount measuring device from one end side of the roll-like object to another end side of the roll-like object in an axial direction of the roll-like object,

wherein the peripheral surface shape of the roll-like object is measured on the basis of the displacement amount of the sensor part accompanied by movement of the displacement amount measuring device; and

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Patent Application No. 09/993,762

wherein contact positions to the roll peripheral surface of the sensor part and the reference point part which pinch the roll-like object are within a range of  $\pm 5$  mm with respect to the diameter direction in a plane perpendicular to the diameter direction.